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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,104	10/14/2004	Hiroichi Inada	33082.224	9028
441	7590	07/12/2006	EXAMINER	
SMITH, GAMBRELL & RUSSELL 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			LAMB, BRENDA A	
			ART UNIT	PAPER NUMBER

1734

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/511,104

Applicant(s)

INADA ET AL.

Examiner

Brenda A. Lamb

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/14/04 & 3/25/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-18 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/14/04 & 3/25/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

The disclosure is objected to because of the following informalities: the originally filed specification refers to specific claim numbers at paragraph 0020-0021 and 0028-0029 and such reference is confusing since the scope of the claims changes over the prosecution of the application.

Appropriate correction is required.

Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form; or rewrite the claim(s) in independent form.

The recitation in claim 5 nozzle carrying means is movable in optional directions in a horizontal plane parallel to the surface of the substrate and in vertical directions does not structurally further limit claim 1 upon which claim 5 depends since claim 5 does not require the nozzle carrying means move in a direction of a horizontal plane parallel to the surface of the substrate and in vertical directions rather such movement or means for movement are optional and therefore unclear how claim 5 further limits the nozzle carrying means which is inherently movable in order to carry the processing liquid nozzle to a working position.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Inada et al 6,616,762.

Inada et al teaches the design of a substrate processing apparatus comprising: a rotary workpiece-holding means 60 for holding and rotating a substrate; a plurality of processing liquid pouring nozzles for pouring processing liquids on a surface of the substrate held by the rotary workpiece-holding means; a nozzle-holding means 64 for holding the processing liquid pouring nozzles at their home positions beside the rotary workpiece-holding means; and a nozzle carrying means 75 for detachably gripping desired one of the processing liquid pouring nozzles held on the nozzle-holding means, and carrying the desired processing liquid pouring nozzle to a working position

above the substrate; wherein the processing liquid pouring nozzles are held in alignment with straight lines extending between the center of the rotary workpiece-holding means about which the rotary workpiece-holding means rotates and a plurality of nozzle holding openings (64a-64d) formed at suitable intervals in the nozzle-holding means, respectively, flexible supply tubes (elements 69a-69d) connecting the processing liquid pouring nozzles to processing liquid sources are arranged on extensions of the straight lines, respectively, and each processing liquid pouring nozzle and the supply tube connected to the processing liquid pouring nozzle move along the straight line when the nozzle carrying means carries the processing liquid pouring nozzle. Thus Inada et al teaches every positively claimed element of the apparatus as set forth in claim 1. With respect to claim 2, Inada et al shows as shown Figure 7 each of the processing liquid pouring nozzles has a block-shaped nozzle head connected to the supply tube, and a nozzle tip 68a attached to the nozzle head; and the nozzle-holding means is provided with angular position determining walls disposed adjacently to the nozzle holding openings such that sides of the nozzle heads of the processing liquid pouring nozzles are contiguous with the angular position determining walls, respectively. With respect to claim 5, Inada et al teaches the nozzle carrying means is movable in optional directions in a horizontal plane parallel to the surface of the substrate and in vertical directions (column 7 lines 29-65).

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inada et al 6,616,762 in view of Japan 10-137665 and .

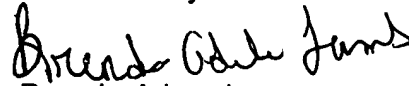
Inada et al is applied for the reasons noted above. Inada et al fails to teach lower end of a drain line is connected to the nozzle holding openings and extending downward is disposed in a sump formed in the bottom wall of a drain/exhaust duct, and drained liquid flowing through the drain line and overflowing the sump is discharged. However, it would have been obvious to modify the Inada et al apparatus by providing a space within the nozzle-holding means which is capable of creating a solvent atmosphere and providing a drain line which is connected to the nozzle holding openings and such drain line extends downwardly and is disposed in a sump formed in the bottom wall of a drain/exhaust duct such that drained liquid flows through the drain line and overflows into the sump such as taught by Japan 10-137665 and Japan 10-106932 for the taught advantage of preventing the solidification of coating in the nozzle standby apparatus. With respect to claim 9, it would have been prima facie obvious given the modifications of the Inada et al apparatus as discussed above to slope the bottom of the drain/duct since Japan 10-106932 shows sloping wall within the nozzle holding means to control flow within the nozzle holding means. Further, it would have been prima facie obvious given the modifications of the Inada et al apparatus as discussed above to connect the drain/duct to the discharge port in the bottom of the vessel for the obvious reason to enable one to collect excess using a single collection means or sump.

Claims 3-4,6-7 and 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 11-18 are allowed.

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Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.

A handwritten signature in black ink, appearing to read "Brenda A. Lamb".

Brenda A Lamb
Examiner
Art Unit 1734